

CLAIMS

- [1] An adaptor for inspection of circuit boards, comprising a wiring board for connection, on the front surface of which a plurality of connecting electrodes have been formed in accordance with a pattern corresponding to a pattern of electrodes to be inspected of a circuit board, which is an object of inspection, and an anisotropically conductive elastomer sheet detachably arranged on the front surface of the wiring board for connection, wherein
- the anisotropically conductive elastomer sheet has a surface roughness of 0.5 to 5 μm on its front surface coming into contact with the circuit board, and a surface roughness of at most 0.3 μm on its back surface coming into contact with the wiring board for connection, and wherein

 the wiring board for connection has, on its front surface, an insulating layer formed in such a manner that each of the connecting electrodes is exposed, and the insulating layer has a surface roughness of at most 0.2 μm on its front surface.

- [2] An adaptor for inspection of circuit boards, comprising a wiring board for connection, on the front surface of which plural pairs of connecting electrodes each composed of a connecting electrode for current supply and a connecting electrode for voltage measurement have been formed in accordance

with a pattern corresponding to a pattern of electrodes to be inspected of a circuit board, which is an object of inspection, and an anisotropically conductive elastomer sheet detachably arranged on the front surface of the wiring board for connection, wherein

the anisotropically conductive elastomer sheet has a surface roughness of 0.5 to 5 μm on its front surface coming into contact with the circuit board, and a surface roughness of at most 0.3 μm on its back surface coming into contact with the wiring board for connection, and wherein

the wiring board for connection has, on its front surface, an insulating layer formed in such a manner that each pair of the connecting electrodes are exposed, and the insulating layer has a surface roughness of at most 0.2 μm on its front surface.

- [3] The adaptor according to claim 1 or 2 for inspection of circuit boards, wherein the anisotropically conductive elastomer sheet is obtained by containing a great number of conductive particles exhibiting magnetism in an elastic polymeric substance, and the conductive particles are oriented so as to align in a thickness-wise direction of the sheet, thereby forming a plurality of chains of the conductive particles.

- [4] The adaptor according to claim 3 for inspection

of circuit boards, wherein the anisotropically conductive elastomer sheet is such that chains of the conductive particles are formed in a state distributed in a plane direction

- [5] An inspection apparatus for circuit boards, comprising the adaptor according to any one of claims 1 to 4 for inspection of circuit boards.

ABSTRACT

The invention provides an adaptor for inspection of circuit boards, by which an inspection operation can be smoothly carried out even when electrical inspection is continuously conducted on a great number of circuit boards to be inspected, the original service life of an anisotropically conductive elastomer sheet can be attained, and the anisotropically conductive elastomer sheet can be easily replaced by a new one when the anisotropically conductive elastomer sheet suffers from trouble, and an inspection apparatus for circuit boards, which is equipped with this adaptor.

The adaptor for inspection of circuit boards of the invention is equipped with a wiring board for connection, on the front surface of which a plurality of connecting electrodes have been formed correspondingly to electrodes to be inspected, and an anisotropically conductive elastomer sheet detachably arranged on the front surface of the wiring board for connection. The anisotropically conductive elastomer sheet has a surface roughness of 0.5 to 5 μm on its front surface coming into contact with the circuit board, and a surface roughness of at most 0.3 μm on its back surface coming into contact with the wiring board for connection, the wiring board for connection has, on its front surface, an insulating layer formed

in such a manner that each of the connecting electrodes is exposed, and the insulating layer has a surface roughness of at most 0.2 μm on its front surface.